

# 2020 Census Systems Readiness

**Atri Kalluri**, Decennial Information Technology Division  
**Luis Cano**, Decennial Contracts Execution Office  
**Patricia McGuire**, Information Technology Directorate

# 2020 Census Systems Readiness

## Agenda

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2018 End-to-End Census Test Systems Readiness

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C-SHaRPS Status Update

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CEDCaP Systems Readiness

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Systems Provisioning

## BASELINE

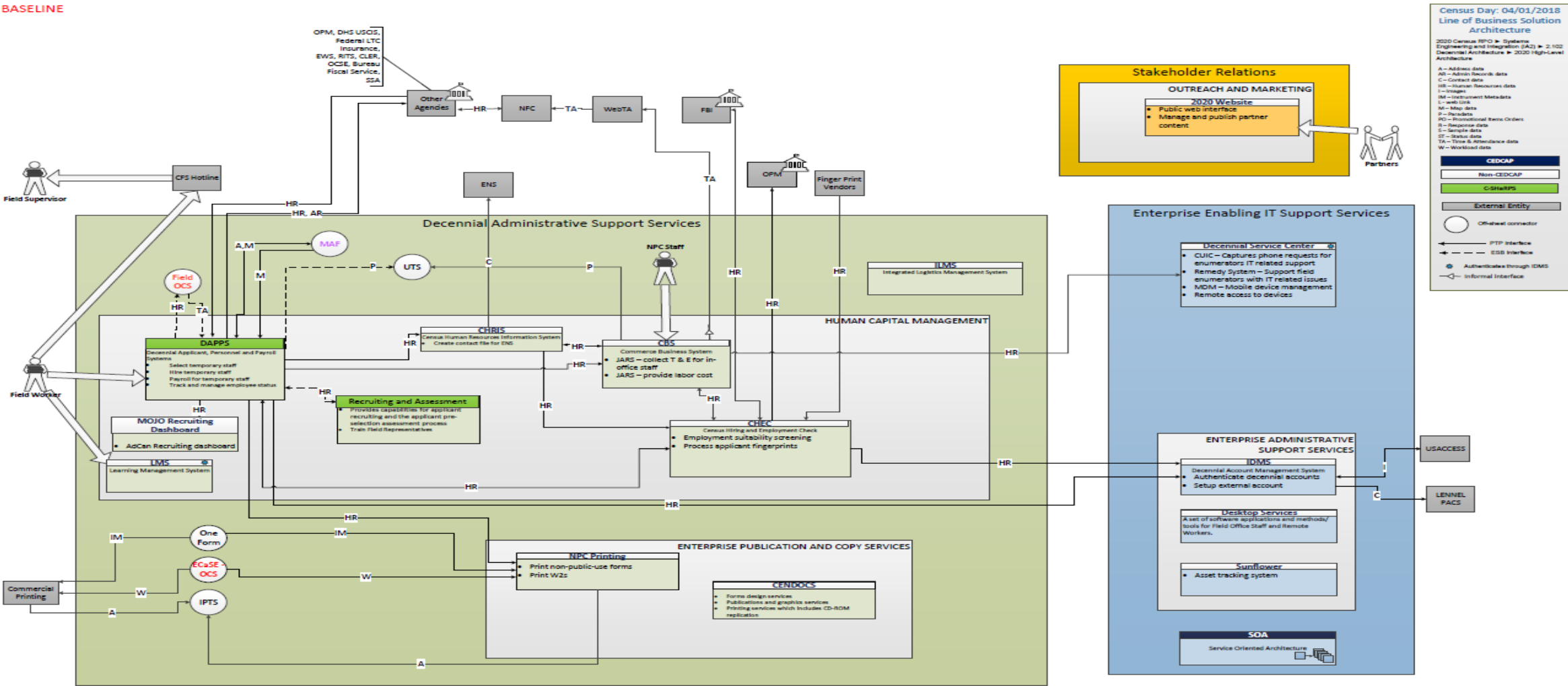


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# 2020 Census Systems Readiness

## 2018 End-to-End Census Test Solution Architecture (continued)

BASELINE



# 2020 Census Systems Readiness

## 2018 End-to-End Census Test Systems

System	Key Efforts/Updates required for 2018/2020
<b>CEDSCI</b> (Center for Enterprise Dissemination Services and Consumer Innovation)	Establish interfaces with 2018 End-to-End Census Test systems. Continue development and test of functionality.
<b>CQA</b> (Census Questionnaire Assistance)	Establish interfaces with 2018 End-to-End Census Test systems. Develop, deploy and align schedule in support of the 2018 End-to-End Census Test Self-Response operation. Scalability updates are required to support 2020 Census.
<b>DRPS</b> (Decennial Response Processing System)	Develop enhancements and deploy in support of response processing operation. Scalability updates are required to support 2020 Census.
<b>IPTS</b> (Intelligent Postal Tracking System)	Design and develop enhanced solution to support 2018 End-to-End Census Test.
<b>MAF/TIGER</b> (Master Address File/Topologically Integrated Geographic Encoding and Referencing Database)	Develop and deploy collection geographies. Provide address and geospatial services for all relevant operations. Initial geography for the 2018 End-to-End Census Test is deployed.
<b>Fraud Detection System</b>	Develop, test, and deploy in support of the 2018 End-to-End Census Test.

# 2020 Census Systems Readiness

## 2018 End-to-End Census Test Systems (continued)

System	Key Efforts/Updates required for 2018/2020
<b>MOJO (Recruiting Dashboard)</b>	As-Is system. Deployed for 2018 End-to-End Census Test recruiting effort.
<b>PEARSIS</b> (Production Environment for Administrative Records Staging, Integration and Storage)	Continue development, test and deploy in support of 2018 End-to-End Census Test.
<b>RTNP</b> (Real Time Non-ID Processing)	Verify cloud deployment in the production environment in support of the self-response operation. Scalability updates are required to support 2020 Census.
<b>SMaRCS</b> (Sampling, Matching, Reviewing, and Coding System)	Develop enhancements and deploy in support of the 2018 End-to-End Census Test.
<b>Tabulation</b> (Decennial Tabulation System)	Establish interface with 2018 End-to-End Census Test systems, develop and deploy enhancements required to support the 2018 End-to-End Census Test. Award development contract.
<b>UTS</b> (Unified Tracking System)	Develop scalability enhancements and deploy in support of 2018 End-to-End Census Test. Develop and deploy new reports. Shift UTS interfaces to Census Data Lake (CDL).

# 2020 Census Systems Readiness

## 2018 End-to-End Census Test Support Systems

System	Key Efforts/Updates required for 2018/2020
<b>CBS</b> (Commerce Business System)	As-Is system, no functionality updates are required for its 2018/2020 baseline scope. Some updates may be required when interfacing systems (such as DAPPS) migrate to the cloud.
<b>CENDOCs</b> (Census Document System)	As-Is system, no functionality updates are required for its 2018/2020 baseline scope.
<b>CHEC</b> (Census Hiring and Employment Check System)	Third party vendor interface needs to be implemented once the fingerprinting contract is awarded. Scalability updates are required to support 2020 Census.
<b>CHRIS</b> (Census Human Resources Information System)	As-Is system, no functionality updates are required for 2018/2020 baseline scope. Some updates may be required when interfacing systems (such as DAPPS) migrate to the cloud.
<b>CIRA</b> (Census Image Retrieval Application)	As-Is system, no functionality updates are required for its 2018/2020 baseline scope. Scalability updates are required to support 2020 Census.
<b>Commercial Printing</b>	Award to vendor. Develop interface with 2018 End-to-End Census Test systems.
<b>IDMS</b> (Identity Management System)	As-Is system, minor functionality updates are required for its 2018/2020 baseline scope. Scalability updates are required to support 2020 Census. Integrate with TI environment.
<b>ILMS</b> (Integrated Logistics Management System)	Complete development contract award. Develop interface with 2018 End-to-End Census Test systems. Possible scalability updates are required to support 2020.
<b>NPC Printing</b> (Printing at the National Processing Center)	As-Is system, no functionality updates are required for its 2018/2020 baseline scope.
<b>Sunflower</b>	As-Is system, no functionality updates are required for its 2018/2020 baseline scope.

# 2020 Census Systems Readiness

## C-SHaRPS Status Update

### Recruiting & Assessment (R&A)

- Completed re-scope of R&A solution and refined path forward
- Completed development of solution and delivered the test environment to TI for TRR2.
- Received Authority to Operate on 6/16/2017
- Developed System Development Lifecycle artifacts required for C-SHaRPS entry into the System Engineering and Integration (SE&I) Recruiting Release 2 Test Readiness Review (TRR) on 6/15/2017

### Decennial Applicant Personnel and Payroll System (DAPPS)

- Finalized re-scope requirements changes via facilitated Joint Application Development (JAD) sessions and updated Requirements Traceability Matrix (RTM) and Business Process Models (BPMs)
- Began implementing DAPPS enhancements via change requests to accommodate outputs of JAD sessions and updated RTM and BPMs

### Learning Management System (LMS)

- Received Authority to Operate on 6/16/2017
- Completed development of solution and delivered the test environment to TI for TRR2

### Fingerprinting

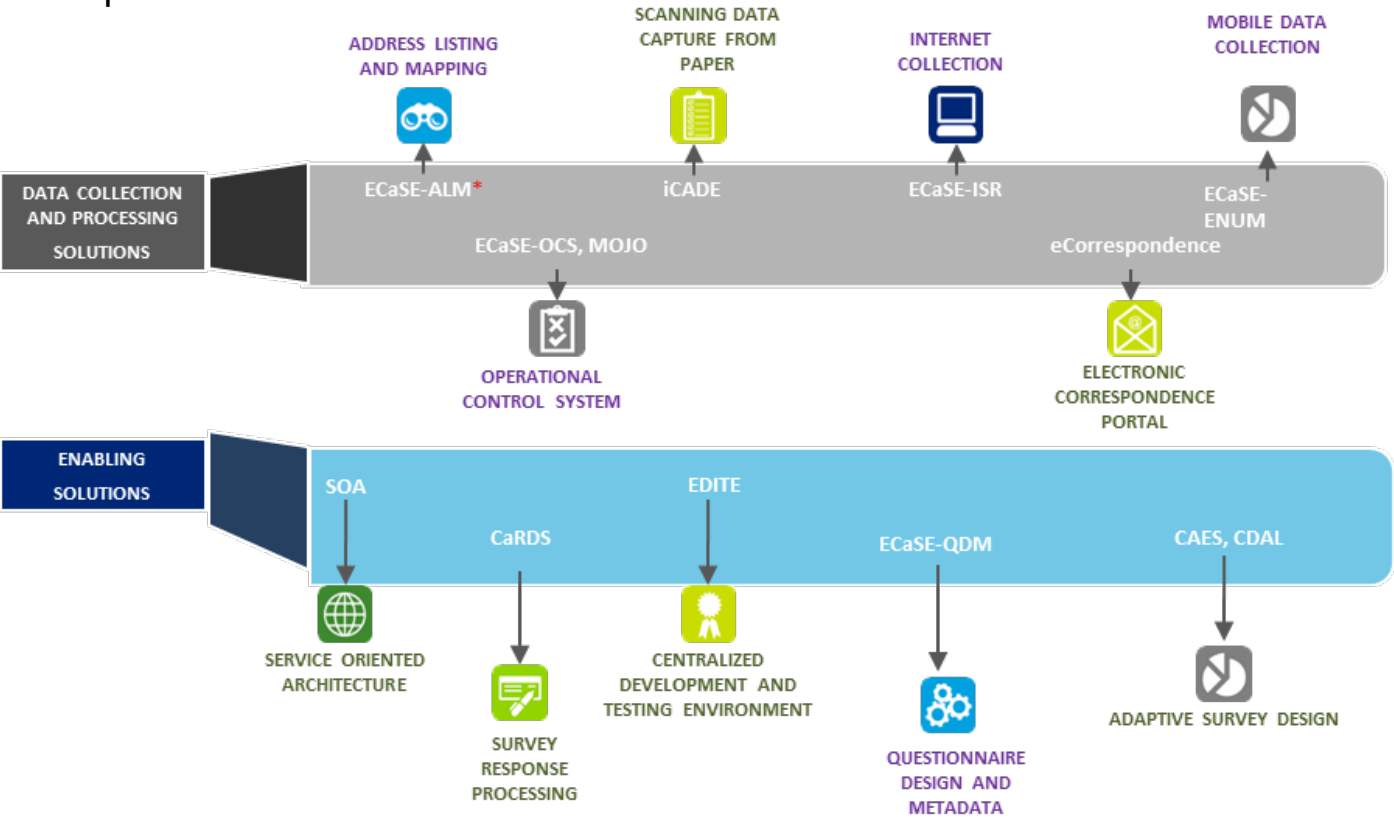
- Released Fingerprinting Request for Proposal (RFP) on the Systems Engineering and Integration (SE&I) project tier on 6/15/2017



# 2020 Census Systems Readiness

## Census Enterprise Data Collection and Processing (CEDCaP) Capabilities and Solutions

CEDCaP is comprised of delivery of enterprise capabilities and the solutions to provide those capabilities.



Census Enterprise Data Collection & Processing (CEDCaP)

CEDCaP Data Collection & Processing Capabilities and Solutions	
Delivered:	
CEDCaP Capability	CEDCaP Solution
1) Centralized Development and Testing Environment to CEDCaP projects	Enterprise Development, Integration, & Test Environment (EDITE)
2) Service Oriented Architecture for CEDCaP projects (Enterprise Service Bus (ESB), Manage File Transfer (MFT), Message Oriented Middleware (MOM), API Gateway)	Application Programming Interface (API) Infrastructure (API-I)
3 Adaptive Survey Design	ECaSE Operational Control System Census–Data Access Layer (C-DAL) Concurrent Analysis and Estimation System (CAES)
4) Operational Control System	ECaSE Operational Control System MOJO Optimizer/Modeling
5) Address Listing and Mapping	ECaSE Address Listing Mapping
6) Internet Data Collection	ECaSE Internet Self Response
7) Questionnaire Design and Metadata	ECaSE- Questionnaire Design Metadata
8) Mobile Data Collection	ECaSE – Enumeration
9) Electronic Correspondence Portal	eCorrespondence
10) Scanning Data Capture from Paper	Integrated Computer Assisted Data Entry (iCADE)
11) Survey Response Processing	CARDS (Pre-data collection, TBD (Post-data collection processing)

Capabilities shown in purple will be provided by the Enterprise Censuses and Surveys Enabling (ECaSE) Platform

\* The long term enterprise solution for Address Listing and Mapping is expected to be ECASE; however, for the 2020 product releases the current enterprise solution (LiMA) will be used.

# 2020 Census Systems Readiness

## CEDCaP Systems

CEDCaP System	Key Efforts/Updates required for 2018/2020
<b>CaRDS</b> (Control and Response Data System)	System successfully supported the 2015, 2016, and 2017 Census Tests. Developing enhancements to support the 2018 End-to-End Census Test. Scalability updates are required to support 2020.
<b>iCADE</b> (Integrated Computer Assisted Data Entry System)	Legacy system that successfully supported the 2015, 2016 and the 2017 Census Tests. Developing enhancements needed for the 2018 End-to-End Census Test. Scalability updates are required to support 2020.
<b>SOA</b> (Service Oriented Architecture)	Used in production to successfully support the 2016 and 2017 Census Tests. For the 2017 Census Test, supported the interfaces between ECaSE in the Cloud and those systems not in the Cloud. Will be used in the Technical Integrator environments for the 2018 End to End Census Test and 2020 Census.
<b>ECaSE</b> (Enterprise Censuses and Surveys Enabling)	Internet Self-Response and Survey Operational Control functionality successfully used in production for the first time during the 2017 Census Test. Developing enhancements for the 2018 End-to-End Census Test. Scalability updates are required to support 2020. Work underway to address recommendation from May 2016 COTS Capability Assessment and Analysis decision to conduct performance testing. Testing will be done by Technical Integrator using 2020 workload models and solutions developed to 2018 End to End Test requirements.

# 2020 Census Systems Readiness

## CEDCaP Systems

CEDCaP System	Key Efforts/Updates required for 2018/2020
<b>CAES</b> (Concurrent Analysis and Estimation)	First time use in the 2018 End to End Census Test. Work will continue to finalize 2020 Census models that will run on CAES.
<b>MOJO Optimizer/Modeling</b> (Route Optimizer)	Successfully supported the 2015 and 2016 Census Tests. Developing enhancements needed for the 2018 End-to-End Census Test to apply business rules needed to re-engineer field operations. Scalability updates are required to support 2020.
<b>LiMA/MCM</b> (Listing and Mapping/Mobile Case Management)	Legacy system in use on current surveys. Supported the 2016 Census Test. Developing enhancements needed for the 2018 End-to-End Census Test. Scalability updates are required to support 2020.

# 2020 Census Systems Readiness

## Systems Deployment

CB-OnPrem	2020 OnPrem	2020 Cloud	CB-NPC	SaaS/Service
<div>BARCA</div> <div>MAF/TIGER</div> <div>UTS</div> <div>DSC</div> <div>CBS</div> <div>CHRIS</div> <div>Desktop Services</div> <div>MOJO Recruiting Dashboard</div> <div>CHEC</div> <div>DAPPS</div> <div>SOA</div> <div>CENDocs</div> <div>Geospatial Services</div> <div>LiMA</div> <div>MCM</div> <div>MaCS</div> <div>2020 Website</div> <div>Centurion (SWIM)</div> <div>CAES</div> <div>CEDSCI</div> <div>Tabulation</div>	<div>SmaRCS</div> <div>CHEC</div> <div>DAPPS</div> <div>CaRDS</div> <div>DRPS</div> <div>SOA (instance)</div> <div>PEARSIS</div> <div>Desktop Services</div>	<div>ECaSE-OCS</div> <div>SOA (instance)</div> <div>ECaSE-FLD-OCS</div> <div>Geospatial Services (instance)</div> <div>SmaRCS</div> <div>MOJO - Optimizer/Modeling</div> <div>UTS</div> <div>DSC</div> <div>ECaSE-ISR</div> <div>RTNP</div> <div>Fraud Detection System</div> <div>LiMA</div> <div>MCM</div>	<div>NPC Printing</div> <div>IPTS</div> <div>iCADE</div> <div>CIRA</div>	<div>ENS</div> <div>Sunflower</div> <div>LMS</div> <div>CFS Hotline</div> <div>ILMS</div> <div>Recruiting and Assessment</div> <div>Commercial Printing</div> <div>CQA</div>

Based on  
IIP 55

Hosted on Phone  
ECaSE-Enum

Run on Field Laptop  
LiMA (Frontend)  
MCM (Frontend)

Run on PC  
One Form Designer +

★ Non-Decennial  
Instance stays behind  
T26 Title 26  
RAC Oracle RAC

TRR Date - Release

<12/13/16 – I
11/18/16 – Recruiting 1
3/8/17 – A/Train 1
6/15/17 – Recruit 2
10/11/17 – Train2/C
12/6/17 - D
2/26/18 - E

# 2020 Census Systems Readiness

## Listing and Mapping Application (LiMA) Demonstration

The screenshot displays the Listing and Mapping Application (LiMA) interface. On the left, a sidebar contains a list of addresses and their housing types. The main area shows a map of a residential neighborhood with a red-shaded block labeled '00006100'. A large play button icon is overlaid on the map. The bottom of the screen shows a Windows taskbar with various application icons and a system clock indicating 6:03 PM on 6/27/2017.

St. 88 Cnty. 008 Tr. 000400

Block 00006100

12 of 12 rows displayed.

All Addresses Worked Unworked

1350 ALBIN RD	HOUSING UNIT	SINGLE FAMILY HOME
1400 ALBIN RD , 99995 (4)		MULTI UNIT STRUCTURE
810 CHAMBER RIVER	HOUSING UNIT	SINGLE FAMILY HOME
815 CHAMBER RIVER RD , 99995	HOUSING UNIT	SINGLE FAMILY HOME
820 CHAMBER RIVER RD , 99995	HOUSING UNIT	SINGLE FAMILY HOME
830 CHAMBER RIVER RD	HOUSING UNIT	SINGLE FAMILY HOME
835 CHAMBER RIVER RD	HOUSING UNIT	SINGLE FAMILY HOME
845 CHAMBER RIVER RD	HOUSING UNIT	SINGLE FAMILY HOME
840 CHAMBER RIVER ST , 99995	HOUSING UNIT	SINGLE FAMILY HOME
1120 OLD PRUDHOMME RD , 999...		

Center on YAH! Show Block Map Settings

1mi 1km

6:03 PM 6/27/2017

# Questions?